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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,398	05/15/2006	Takahiko Taniguchi	PCT06-1002	6427

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EXAMINER

CHENEVERT, PAUL A

ART UNIT	PAPER NUMBER
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3612

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/579,398	Applicant(s) TANIGUCHI ET AL.	
	Examiner Paul A. Chenevert	Art Unit 3612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2006 05 15</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figure 19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
 - a. Paragraph 4, line 3, "In FIG. 16 are shown energy absorbing bodies 91 - 94 disclosed in the publication" is confusing because there is no Figure 16 in JP 2002 331895 and there are no reference numbers 91-94 in the reference.
 - b. Paragraph 22, line 9, "carper" should be changed to "carpet".Appropriate correction is required.

Claim Objections

4. Claims 5 & 10-17 are objected to because of the following informalities:
- a. Claim 4, line 2, "its" should be changed to a more descriptive term.
 - b. Claim 4, line 2, "then" should be changed to "the".
 - c. Claim 5, line 1, "it" should be changed to a more descriptive term.
 - d. Claim 10, line 1, "it" should be changed to a more descriptive term.
 - e. Claim 11, line 2, "its" should be changed to a more descriptive term.
 - f. Claim 14, line 1, "it" should be changed to a more descriptive term.
 - g. Claim 14, line 2, "in accordance with JIS L1096" should be deleted or else defined in the claim.
 - h. Claim 17, lines 1 & 3, "it" should be changed to a more descriptive term.
- Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg (US 1,736,572 A; 19NOV29) in view of Kieseewetter et al. (US 4,425,981 A; 17JAN84).

Berg discloses an impact absorbing body (12) disposed below feet of an occupant of an automobile as interposed between a body panel (8, 9) and a floor covering (5) laid apart from the body panel toward a cabin, characterized in that a plurality of load supporting portions (12), having a corrugated cross-section forming grooves arranged parallel to a face facing toward the cabin of said body panel, are disposed side by side along the face facing toward the cabin of said body panel. In regards to claim 3, the body panel below the feet of the occupant has a flat-shaped flat portion (9) and a rising wall portion (8) extended obliquely upward from a front edge of the flat portion, and each of the load supporting portions (12) are disposed over both the flat portion and the rising wall portion.

However, Berg does not expressly disclose neighboring load supporting portions are connected by a flat-plate-shaped bridge portion nor that the neighboring load supporting portions are connected at ends thereof on a side toward the floor covering by the flat-plate-shaped bridge portion.

Kieseewetter et al. disclose a sound absorbing body having V-lettered cross-sections forming grooves (s) arranged parallel and neighboring grooves are connected by a flat-plate-shaped bridge portion (b). In regards to claim 2, the neighboring grooves are connected at ends thereof on a side toward the floor covering by the flat-plate-shaped bridge portion.

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Berg and Kieseewetter et al. are analogous art because they are from the same field of endeavor, that is the absorption of unwanted waves of energy, whether it is the absorption of heat and impact energy in the floor mat of Berg or the sound absorption in the mat material of Kieseewetter et al.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, to employ V-letter shaped grooves connected with flat bridges, as taught by Kieseewetter et al.

The suggestion/motivation for doing so would have been to allow the impact absorbing body also have sound absorbing properties, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg by connecting the neighboring V-letter shaped grooves with flat bridges to obtain the invention as specified in claim 1, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as modified, as applied to claim 1 above, and further in view of obvious common knowledge.

Berg, as modified, disclose the claimed invention except for the impact absorbing body configured such that, when energy is absorbed thereby when compressed in the thickness direction is 30 J, the generated responsive load is less than 3.0 kN. It would have been obvious to one having ordinary skill in the art at the time the invention was made to ensure proper energy absorption properties, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as modified, as applied to claim 1 above, and further in view of Kitagawa (US 2001/0003399 A1; 14JUN01).

Berg, as modified, discloses an impact absorbing body made from corrugated sheet metal.

However, Berg, as modified, do not expressly disclose that the body could also be made from a material obtained by foaming a synthetic resin material.

Kitagawa discloses impact absorbing body (energy absorbing unit 5) made from a material obtained by foaming a synthetic resin material (molded foaming member 15 of a synthetic resin; see paragraph 0085), as can best be seen in Figure 27.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, as modified, to employ a foamed synthetic resin material, as taught by Kitagawa.

The suggestion/motivation for doing so would have been to improve the impact absorbing body's occupant safety property, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg, as modified, by employing a foamed synthetic resin material to obtain the invention as specified in claim 5, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

10. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as twice modified, as applied to claim 5 above, and further in view of obvious common knowledge.

Berg, as twice modified, disclose the claimed invention except for the load supporting portion having a thickness of 6-15 mm and the bridge portions having a thickness of 3-15 mm;

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the lower face of the bridges having a length of 20-50 mm; nor the angle of the groove being 5-60 degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ proper dimensions for the impact absorbing body, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as modified, as applied to claim 1 above, and further in view of Eiji (JP 62-184947; 13AUG87; cited on IDS).

Berg, as modified, disclose an impact absorbing body having V-shaped grooves and flat bridges.

However, Berg, as modified, do not expressly disclose that the bridges have holes in the surfaces.

Eiji discloses an impact absorbing body having a plurality of sound-absorbing holes.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, as modified, to employ holes in the top surface, as taught by Eiji.

The suggestion/motivation for doing so would have been to improve the sound absorbing property of the impact absorbing body, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg, as modified, by combining holes with the bridges to obtain the invention as specified in claim 9, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

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12. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as modified, as applied to claim 1 above, and further in view of Tokoro et al. (US 2002/0182399 A1; 05DEC02)

Berg, as modified, disclose impact absorbing body.

However, Berg, as modified, do not expressly disclose that the impact absorbing body employs molded aggregate of cylindrical resin granules having various properties.

Tokoro et al. discloses employing a molded body of thermoplastic resin having sound absorption characteristics. In particular, one embodiment employs slanted granules having elliptical openings and another embodiment employs roughened interior surfaces.

Berg, as modified, and Tokoro et al. are analogous art because they are from the same field of endeavor, that is the absorption of unwanted sound.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, as modified, to employ cylindrical sound absorbing aggregate, as taught by Tokoro et al.

The suggestion/motivation for doing so would have been to improve the sound absorption property of the impact absorbing body, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg, as modified, by combining cylindrical aggregate with the V-shaped corrugated layer to obtain the invention as specified in claim 10, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

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13. Claims 14 & 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as twice modified, as applied to claim 10 above, and further in view of obvious common knowledge.

Berg, as twice modified, disclose the claimed invention except for the impact absorbing body having an air permeability of $2.0 \text{ cc/cm}^2/\text{sec}$ or above nor that a laminate having a permeability greater than $0 \text{ cc/cm}^2/\text{sec}$ and smaller than $90 \text{ cc/cm}^2/\text{sec}$. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ proper permeability for the impact absorbing body, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as twice modified, as applied to claim 10 above, and further in view of Kramer (US 2,709,105 A; 24MAY55).

Berg, as twice modified, disclose an impact absorbing body.

However, Berg, as twice modified, do not expressly disclose that the face of the impact absorbing body facing toward the outside of the automobile is roughened.

Kramer discloses an impact absorbing body (mat 21) having a face (ribs 24) facing toward the outside of the automobile is roughened.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, as twice modified, to employ a roughened outer face, as taught by Kramer.

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The suggestion/motivation for doing so would have been to allow for even more impact, heat, and sound protection, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg, as twice modified, by combining a roughened outer face with the impact absorbing body to obtain the invention as specified in claim 16, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

15. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg, as twice modified, as applied to claim 10 above, and further in view of Kramer and Stata (US 3,387,315 A; 11JUN68).

Berg, as twice modified, disclose an impact absorbing body.

However, Berg, as twice modified, do not expressly disclose that the face of the impact absorbing body facing toward the outside of the automobile has concavities and convexities further laminated with felt.

Kramer discloses an impact absorbing body (mat 21) having a face (ribs 24) facing toward the outside of the automobile having concavities and convexities.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, as twice modified, to employ an outer face having concavities and convexities, as taught by Kramer.

The suggestion/motivation for doing so would have been to allow for even more impact, heat, and sound protection, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg, as twice modified, by combining an outer face with

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concavities and convexities on the impact absorbing body to obtain the invention as specified in claim 17, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

Stata discloses a impact absorbing body having a laminated felt layer (11).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the impact absorbing body of Berg, as twice modified, to employ felt, as taught by Kramer.

The suggestion/motivation for doing so would have been to provide even further impact, heat, and sound absorption properties, as is desired in this vehicle invention.

Therefore, it would have been a desirable and thus a prima facie obvious modification of the impact absorbing body of Berg, as twice modified, by combining felt with the outer surface to obtain the invention as specified in claim 17, as taught by the prior references' motivation, and not hindsight from the applicants disclosure.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Chenevert whose telephone number is 571-272-6657. The examiner can normally be reached on Mon-Fri (8:30-5:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn D. Dayoan can be reached on 571-272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paul A. Chenevert
Examiner
Art Unit 3612

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3/19/07